WHAT IS CLAIMED IS:

1. A power regulator, comprising:

produce an output voltage.

- a linear control circuit having an output terminal electrically connected to an input terminal thereof for producing a reference voltage; and a pulse width modulation circuit electrically connected to said linear control circuit in response to said reference voltage and an input voltage so as to
- 2. The power regulator as claimed in claim 1, wherein said linear control circuit is an operational amplifier.
- 3. The power regulator as claimed in claim 2, wherein said output terminal of said operational amplifier is electrically connected to an inverting input terminal thereof.
- 4. The power regulator as claimed in claim 1, wherein said pulse width modulation circuit is a synchronous pulse-width-modulation circuit.
- 5. The power regulator as claimed in claim 1, wherein said pulse width modulation circuit is an asynchronous pulse-width-modulation circuit.